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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,291	11/13/2003	Satoko Shitagaki	12732-174001 / US6725	5773
26171	7590	11/03/2006		
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022				
			EXAMINER YAMNITZKY, MARIE ROSE	
			ART UNIT 1774	PAPER NUMBER

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/706,291	<b>Applicant(s)</b> SHITAGAKI ET AL.	
	<b>Examiner</b> Marie R. Yamnitzky	<b>Art Unit</b> 1774	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-27 and 29 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-19, 22-27 and 29 is/are allowed.
- 6) ☒ Claim(s) 15 and 21 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's amendment filed on September 22, 2006, which amends claims 15 and 17-19, has been entered.

Claims 15-27 and 29 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. All rejections under 35 U.S.C. 103(a) as set forth in the Office action mailed June 22, 2006 are overcome by applicant's amendment filed September 22, 2006.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claim 15 is rejected under 35 U.S.C. 102(a) as being anticipated by JP 2003-40873.

A machine translation of the reference is provided with this action.

The quinoxaline derivatives represented by structures (4) and (11) on page 8 of the JP document are quinoxaline derivatives represented by the formula set forth in present claim 15 wherein each of R1 to R6 represents hydrogen and each of X and Y represents an unsubstituted aryl group. The naphthylphenyl groups at the positions corresponding to present X and Y in the prior art compounds are aryl groups as a whole, and therefore considered, as a whole, to meet the limitations of an unsubstituted aryl group.

The quinoxaline derivatives are disclosed for use in an organic electroluminescent device, and may be used in the light-emitting layer of the device. For example, see claims 4 and 5, and paragraph [0021].

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-40873 as applied to claim 15 above, and further in view of Li et al. (US 6,723,445 B2).

JP '873 teaches that the quinoxaline derivative may be used in the light-emitting layer in combination with another luminescent material. For example, see paragraph [0021]. JP '873 does not teach using a phosphorescent material as the additional luminescent material.

Li et al. teach that a quinoxaline derivative may be used as a host material in a light-emitting layer of an electroluminescent device, and that the dopant may be a phosphorescence material. For example, see column 4, line 37-c. 5, l. 14 and c. 8, l. 25-37 of the Li patent.

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It was known in the art at the time of the invention that device efficiency of an electroluminescent device can be improved by using a phosphorescent material instead of a fluorescent material.

It would have been an obvious modification to one of ordinary skill in the art at the time of the invention, having knowledge of Li's disclosure that quinoxaline derivatives can be used as host materials for phosphorescent materials in electroluminescent devices, and having general knowledge in the art that device efficiency can be improved by using a phosphorescent material instead of a fluorescent material, to utilize a phosphorescent material in place of a fluorescent material when making a device comprising a combination of luminescent material and quinoxaline derivative as taught, for example, in paragraph [0021] of JP '873.

6. Claims 16-19, 22-27 and 29 are allowed.

Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
November 01, 2006

*Marie R. Yamnitzky*  
MARIE YAMNITZKY  
PRIMARY EXAMINER  
1774